

UNIFORM LASER EXCITATION AND DETECTION IN CAPILLARY ARRAY
ELECTROPHORESIS SYSTEM AND METHOD

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ABSTRACT

A capillary electrophoresis system comprises capillaries positioned in parallel to each other forming a plane. The capillaries are configured to allow samples to migrate. A light source is configured to illuminate the capillaries and the samples therein. This causes the samples to emit light. A lens is configured to receive the light emitted by the samples and positioned directly over a first group of the capillaries and obliquely over a second group of the capillaries. The light source is further configured to illuminate the second group of capillaries more than the first group of the capillaries such that amount of light received by the lens from the first group of capillaries is substantially identical to amount of light received from the second group of capillaries when an identical amount of the samples is migrating through the first and second group capillaries.